

Abstract of the Disclosure

A phosphor compliant with formula (1) below and a perovskite structure containing samarium (Sm):



where M is an alkali earth metal, A is an element selected from the group consisting of cerium (Ce), praseodymium (Pr), europium (Eu), terbium (Tb), and thulium (Tm), and B is a Group IIIA element of the periodic table. The phosphor has excellent luminance and lifespan while not containing S in its host matrix, and is also environmentally safe since it does not contain cadmium that is harmful to the environment. Therefore, the phosphor can be advantageously utilized for various display applications including vacuum fluorescent displays (VFDs) and field emission displays (FEDs).